APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,848	02/05/2004	Alan B. Kyker	ITL.1533C2US (P5820C2)	7181

21906   7590   07/13/2007
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EXAMINER
DONAGHUE, LARRY D

ART UNIT	PAPER NUMBER
2154	

MAIL DATE	DELIVERY MODE
07/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>02 April 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>22-37,39-41 and 51-53</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>22,23,25,27,29,30,36,37,40,41 and 51</u> is/are rejected.

7) ☒ Claim(s) <u>24,26,28,31-335,39 and 52-53</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

1. Claims 22-37,39-41 and 51-53 are presented fro examination.

2. The terminal disclaimer filed on 04/02/2007 is accepted.

3. Claims 24,26,28,31-35,39 and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. The rejection is maintained and set forth below.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 22,23,25,27,29,30,36-37, 40 and 51-52 are rejected under 35 U.S.C. 102(b) as being anticipated by May (4,724,517).

May taught the invention as claimed including a method for compressing an immediate operand associated with a current instruction; storing the compressed operand in a selected one of a plurality of fixed length operand fields (fig. 5, col. 21,lines 45-49), wherein each of the operand fields is associated with one of a plurality of program instructions; wherein the plurality of program instructions includes the current instruction and an adjacent instruction (col. 22, line 55 – col. 23, line 7).

As to claim 23, may taught the adjacent instruction is a previous instruction; and storing the compressed operand further comprises storing the compressed operand in the operand field associated with the previous instruction (col. 22, line 55 – col. .

As to claim 25, May taught storing the compressed operand further comprises storing the compressed operand in the operand field associated with the current instruction (col. 22, line 55 – col. 23, line 7).

As to claim 27, May taught the adjacent instruction is a next instruction; and storing the compressed operand further comprises storing the compressed operand in the operand field associated with the next instruction (col. 22, line 55 – col. 23, line 7).

As to claim 29, May taught the compressing further comprises: compressing using sign extension (col. 22, line 55 – col. 23, line 7):

As to claim 30, May taught the plurality of program instructions includes the current instruction, a previous instruction and a next instruction (col. 22, line 55 – col. 23, line 7).

As to claim 36, May taught storing one portion of an immediate operand for a current instruction in a fixed-length operand field associated with the current instruction; and storing a remaining portion of the immediate operand for the current instruction in a fixed-length operand field (col. of an instruction adjacent to the current instruction; wherein the length of the immediate operand is Y bits and the length of the operand fields for the current instruction and the adjacent instruction is less than Y bits (col. 22, line 55 – col. 23, line 7).

As to claim 37, May taught the length of the operand fields for the current instruction and the adjacent instruction is Y/2 (col. 22, line 55 – col. 23, line 7). Noted May taught the operand can be up 16, bits, therefore it can be less, if the operand is 8 bits, then both instruction contain Y/2 of the bits.

As to claim 38, May taught adjacent instruction is a previous instruction(col. 22, line 55 – col. 23, line 7)

As to claim 40, May taught the adjacent instruction is a next instruction (col. 22, line 55 – col. 23, line 7).

As to claims 51-51, they fail to teach and define beyond claims 22,23,25,27,29,30,36-37, and 40 and are rejected for the reasons set forth above.

7.   Applicant's arguments filed 04/07/2007 have been fully considered but they are not persuasive.

Applicant set forth the following argument "As to claim 22, May nowhere teaches compressing an immediate operand associated with a current instruction, nor storing such compressed operand in a selected one of multiple fixed-length operand fields. In this regard, the Office Action appears to contend that FIG. 5 of May and the corresponding discussion in the specification teaches such subject matter. However, all that FIG. 5 and the corresponding specification teaches is that instructions are of a fixed length and include a function field and a data field. Nowhere, however, does May anywhere teach or suggest that the operand field (i.e., corresponding to the data portion) can store compressed data. In fact, the May reference does not even include the word "compression;' anywhere. Every instruction used in the system of May includes the same number of bits, one part representing a function and another

part representing data. May, 8:46-58. As there is no teaching or suggestion of compressing of an immediate operand

in May, the rejection of claim 22 and the claims depending therefrom are overcome. "

Applicant should note that the specification defines compression to included the following:

The fixed number of bits allocated to the immediate operand fields 623, 633 is 16 bits, half of the number of bits allocated to the immediate operand fields 602, 612 in the instructions 600-610 of Figure 6a. Forward scavenging compresses the 32 bit immediate operand in the following manner. The processor recognizes that the immediate operand for instruction 600 employs 32 bits to represent its value, and also that there is no immediate operand in instruction 610. Therefore, the processor can store the immediate operand or a portion of the immediate operand of instruction 600 in the vacant immediate operand field 612 of instruction 610. In this particular case, since 32 bits are employed to represent the immediate operand of instruction 600, the processor accomplishes this compression by splitting the 32 bit immediate operand associated with instruction 600 in half. Fig. 6b shows the results of this compression, with 16 bits of the immediate operand stored in the immediate operand field 623 of the current instruction 620 and 16 bits of the immediate operand stored in the immediate operand field 633 of the next instruction 630.

May set forth this type of compression.

8.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37
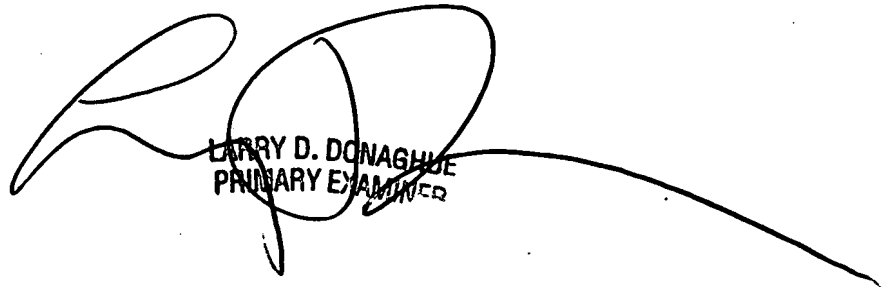
CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing

date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and

the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory

period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed

to Larry D. Donaghue whose telephone number is 571-272-3962. The examiner can normally be reached on M-F

8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn

can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LARRY D. DONAGHUE
PRIMARY EXAMINER